



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/872,097	06/10/1997	ILYA FEYGIN	301.0001	9049

27997 7590 11/04/2003

PRIEST & GOLDSTEIN PLLC
5015 SOUTHPARK DRIVE
SUITE 230
DURHAM, NC 27713-7736

EXAMINER

WARDEN, JILL ALICE

ART UNIT	PAPER NUMBER
----------	--------------

1743

DATE MAILED: 11/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

08/872,097

Applicant(s)

FEYGIN ET AL.

Examiner

Jill A. Warden

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/7/02 - remand from BPAI.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11-29, 31-43 and 47-67 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-16, 31-34, 66 and 67 is/are allowed.
- 6) ☐ Claim(s) 1-6, 22-28, 40 and 47 is/are rejected.
- 7) ☐ Claim(s) 7-9, 17-21, 29, 35-39, 41-43 and 48-65 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1743

DETAILED ACTION

In view of the order vacating rejections and remanding the application filed on February 7, 2002, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 4, 23, 24, 26 and 47 are rejected under 35 U.S.C. 102(e) as being anticipated by Gleave et al.

Gleave et al. relates to the exchange of fluid in the extraction of an analyte while injecting extraction fluid (col. 2, lines 35-40). Gleave clearly indicates provision for a plurality of reaction vessels (elicitation of an analyte from solution can occur in a reaction vessel) (see figs. 2, 3, 4, and col. 14, line 36 "one or more cells", col. 14, line 53 "one of cells). Gleave teaches a reaction vessel support (23). Gleave also teaches a plurality of cells present and each cell having an injection and evacuation port. There is a plurality of injection and evacuation ports (column 5, lines 20-31, "inlet conduit", "static valve", "outlet conduit"). Injection and evacuation fittings 161 and 164 matingly engage the injection and evacuation ports. Tray motor aligns each cell with inlet and evacuation

Art Unit: 1743

ports (col. 8, lines 3-32). In the figures, injection port is located at the top of each cell, while evacuation port is at the bottom of each cell.

Claim Rejections - 35 USC § 103

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Art Unit: 1743

Claims 3, 5, 6, 22, 25, 27, 28 and 40 rejected under 35 U.S.C. 103(a) as being unpatentable over Gleave, et al.

Gleave, et al. do not teach

The evacuation port being at the top of the vessel,

The injection port being at the bottom of the vessel,

The specific use of flexible tubing connecting to the injection or evacuation ports,

or

A U-valve connected to regulate the flow of liquids through the evacuation fitting.

With respect to the specific placement of the evacuation/injection ports, it would have been obvious to determine placement of these elements, as well as flow through the vessel, based on physical location of elements within the system, as well as a number of operating parameters. One would seek to make the system as compact and efficient as possible. As to operating parameters, such as pressure drop, one of ordinary skill in the art would seek to minimize pressure drop in the placement of ports and fittings within the system.

As to the use of flexible tubing, it would have been obvious to provide, in a laboratory system such as Gleave, et al. flexible tubing as the conduits. These would be easily cleaned and inspected, as well as readily replaceable.

With respect to the use of a U-valve to regulate flow, it would have been obvious to one having ordinary skill in the art to regulate flow in the system by the most economical, simple system available. A U-valve would have been readily apparent to one of ordinary skill in the art.

Art Unit: 1743

Allowable Subject Matter

Claims 7-9, 17-21, 29, 35-39, 41-43 and 48-65 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 11-16, 31-34, 66 and 67 are allowed.

The prior art does not teach, nor fairly suggest a reaction tool having a plurality of reaction vessels with a plurality of injection and evacuation ports and corresponding fittings, also including the specific features recited in the indicated claims, namely:

Spring-loaded evacuation ports,

Top and bottom support plates for the plurality of reaction vessels with tapered through fittings,

A stirring motor with a magnet attached to the shaft and a magnet adjacent a side wall of the vessel,


Electromagnetic coils and a tapered whisk stirrer,

Electromagnetic push pull coils and a floating stirrer, and

Resistive heater jacket on the reaction vessels.

Conclusion

Any inquiry concerning this communication should be directed to Jill A. Warden at telephone number (703) 308-4037.


Jill A. Warden
SPE
Art Unit 1743